

Acidic Compounds Analysis

Stabilwax®-DA Columns (fused silica)

(polar phase; Crossbond® acid-deactivated Carbowax® polyethylene glycol—for acidic compounds)

- Application-specific columns for free (underivatized) acids, some inorganic acids.
- Resistant to oxidative damage.
- Temperature range: 40 °C to 250 °C.
- Equivalent to USP G25, G35 phases.

Stabilwax®-DA bonded polyethylene glycol has an acidic functionality incorporated into the polymer structure. This permits analysis of acidic compounds without derivatization, significantly reduces adsorption of acids, and increases sample capacity for volatile free acids. Stabilwax®-DA columns last longer and give better peak shapes for high molecular weight acids. Some inorganic acids also chromatograph well on a Stabilwax®-DA column; the limitation is the volatility of the acidic compound.

similar phases

DB-FFAP, HP-FFAP, NUKOL, OV-351, CP-Wax 58 CB, FFAP

crossbond® technology

reduces bleed, prolongs column lifetime, and allows rejuvenation through solvent rinsing.

ID	df	temp. limits	15-Meter	30-Meter	60-Meter
0.25mm	0.10µm	40 to 250°C	11005	11008	11011
	0.25µm	40 to 250°C	11020	11023	11026
	0.50µm	40 to 250°C	11035	11038	11041
0.32mm	0.10µm	40 to 250°C	11006	11009	11012
	0.25µm	40 to 250°C	11021	11024	11027
	0.50µm	40 to 250°C	11036	11039	11042
	1.00µm	40 to 240/250°C	11051	11054	11057
0.53mm	0.10µm	40 to 250°C	11007	11010	11013
	0.25µm	40 to 250°C	11022	11025	11028
	0.50µm	40 to 250°C	11037	11040	11043
	1.00µm	40 to 240/250°C	11052	11055	11058
	1.50µm	40 to 230/240°C	11062	11065	11068

Underivatized alcoholic beverage acids and methyl esters on a Stabilwax®-DA column.

Peak List	Conc. (ppm)
1. ethyl octanoate	100
2. acetic acid	100
3. propionic acid	100
4. isobutyric acid	100
5. 3-decanol	50
6. ethyl decanoate	50
7. ethyl laurate	50
8. cis-lactone	100
9. 2-phenylethanol	50
10. trans-lactone	100
11. methyl myristate	50
12. ethyl myristate	50
13. octanoic acid	100
14. ethyl palmitate	50
15. decanoic acid	100
16. dodecanoic acid	100
17. vanillin	100

Column: Stabilwax®-DA, 30m, 0.18mm ID, 0.18µm (cat.# 550752)
 Inj.: 1µL splitless (hold 0.5 min.) at conc. shown in peak list, in ethyl acetate, 4mm ID splitless liner w/wool (cat.# 20814-202.1)
 Inj. temp.: 240°C
 Carrier gas: hydrogen
 Make-up gas: nitrogen
 Linear velocity: 28psi @ 240°C
 Oven temp.: 70°C to 240°C at 12°C/min. (hold 3 min.)
 Det.: FID

